

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL POLE, SPAN WIRE, AND SIGNAL HEADS AT MD 170 AND MD 174 IN ANNE ARUNDEL COUNTY. MD 170 WILL BE WIDENED ALONG THE EAST SIDE TO PROVIDE A RIGHT TURN LANE. MD 170 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

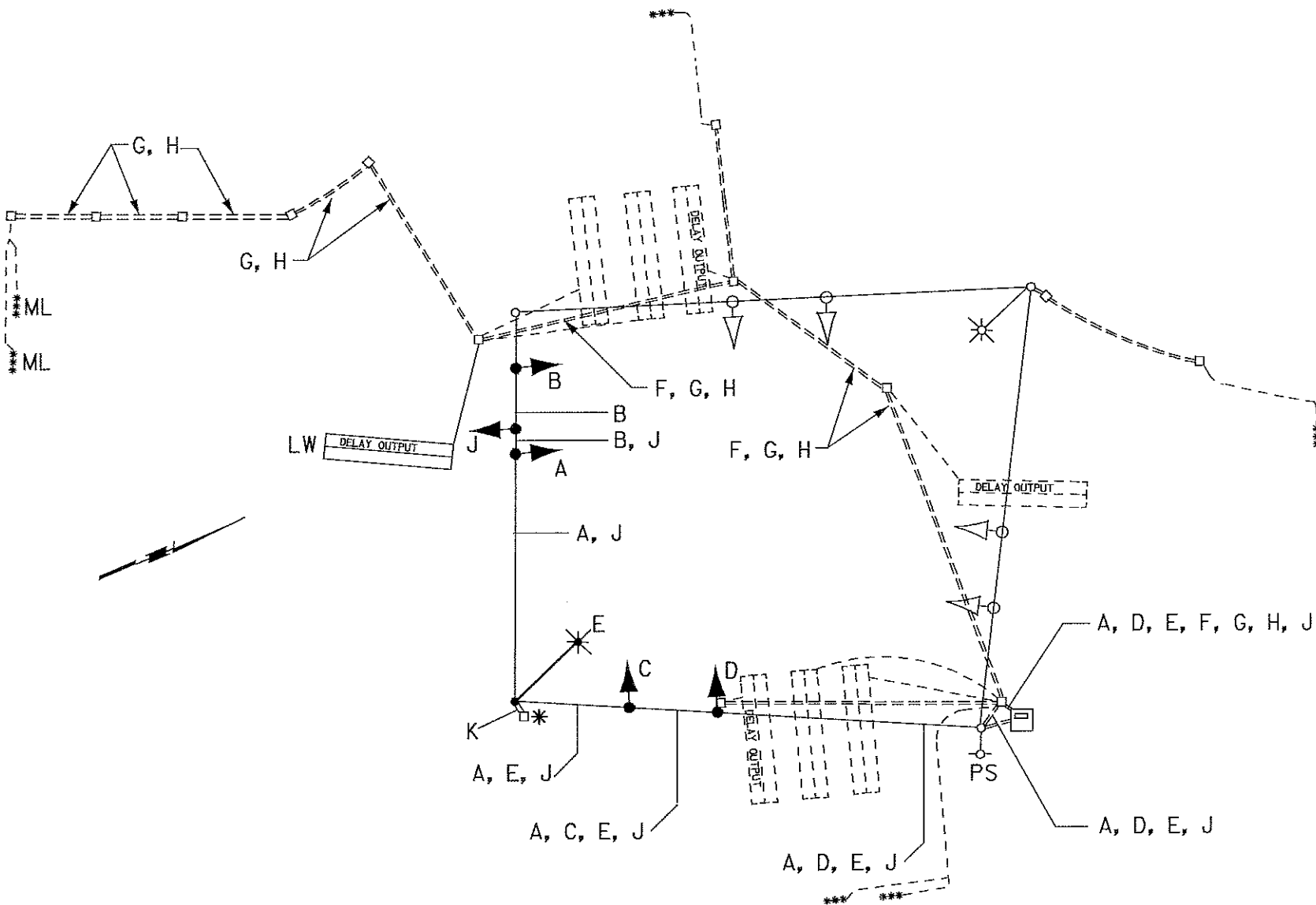
INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IN EACH DIRECTION.

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY LOCATION OF NEW GEOMETRICS PRIOR TO INSTALLATION OF SIGNAL EQUIPMENT.
2. WITHIN 18 IN. OF UNDERGROUND UTILITY LOCATION, THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE FOR FOUNDATION AND CONDUIT BY HAND.
3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
4. ALL STOP LINE MARKINGS ARE TO BE INSTALLED ACCORDING TO SHA STANDARDS.

WIRING DIAGRAM



- A, D, J — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B, C — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- F — 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)

- G, H — MICROLOOP PROBE LEAD-IN
- K — BARE COPPER STRANDED GROUND WIRE (NO. 6 A.W.G.)
- LW — LOOP WIRE
- \* — 3/4 IN X 10 FT. GROUND ROD
- PS — POWER SOURCE
- ML — MICROLOOP PROBE

EQUIPMENT LIST 'A'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	SPECIFICATION SECTION	DESCRIPTION
15 S.F.	813	R10-12 SIGN (36 IN X 30 IN) SPAN MOUNT
8.75 S.F.	813	W9-4(2) SIGN (30 IN X 42 IN) SPAN MOUNT
18.4 S.F.	813	ROUTE MARKER ASSEMBLY (GROUND MOUNT) TO INCLUDE: M3-4 SIGN (24 INX 12 IN) M3-2 SIGN (24 IN X 12 IN) M1-5 SIGN (24 IN X 30 IN) 2 EACH M6-1 SIGN (15 IN X 21 IN) 2 EACH

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	SPECIFICATION SECTION	DESCRIPTION
LUMP SUM	104	MAINTENANCE OF TRAFFIC FOR TRAFFIC SIGNAL CONSTRUCTION
LUMP SUM	108	MOBILIZATION FOR TRAFFIC SIGNAL CONSTRUCTION
2 C.Y.	205	TEST PIT EXCAVATION
250 L.F.	553	FURNISH AND INSTALL 5 IN. WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
1 EA.	555	FURNISH AND INSTALL PERMANENT PREFORMED PAVEMENT MARKING ARROW
50 L.F.	556	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED PAVEMENT MARKING (FOR STOP LINE)
2.62 C.Y.	801	FURNISH AND INSTALL CONCRETE FOR SIGNAL POLE FOUNDATION
1 EACH	804	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
15 L.F.	804	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
20 L.F.	805	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT (FOR DETECTOR SLEEVE)
10 L.F.	805	FURNISH AND INSTALL 3 IN., SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED)
1 EACH	806	FURNISH AND INSTALL 250 WATT HPS LAMP AND LUMINAIRE WITH PHOTOCELL
1 EACH	806	FURNISH AND INSTALL 20-FOOT LIGHTING ARM FOR TRAFFIC SIGNAL STRUCTURE
40 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
560 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
185 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
200 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
460 L.F.	810	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING (NO. 14 A.W.G.)
1 EACH	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
31 L.F.	812	FURNISH AND INSTALL WOOD SIGN SUPPORT (4 IN X 6 IN)
18 EACH	814	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD
3 EACH	814	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD
135 L.F.	815	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
1 EACH	818	FURNISH AND INSTALL 12 IN. X 30 FT. STRAIN POLE
200 L.F.	819	FURNISH AND INSTALL STEEL SPAN WIRE- 3/8 INCH DIAMETER
200 L.F.	819	FURNISH AND INSTALL STEEL SPAN WIRE- 1/4 INCH DIAMETER (FOR TETHER)
LUMP SUM	- - -	REMOVE AND SALVAGE EXISTING EQUIPMENT
7.5 S.F.	- - -	REMOVE EXISTING SPAN MOUNTED SIGN
2 EACH	- - -	FURNISH AND INSTALL MICROLOOP PROBE SET AND 1000 FT. LEAD-IN
2 EACH	- - -	FURNISH AND INSTALL BACK GUY

PHASE CHART

	1	2	3	4	5	6	7	8	9	
PHASE 1 + 5			R		R	R	R	R	R	
PHASE 1 + 5 CHANGE			R		R	R	R	R	R	
PHASE 1 + 6			G		R	R	R	R	R	
PHASE 1 + 6 CHANGE			G		R	R	R	R	R	
PHASE 2 + 5	R	R	R		G	R	R	R	R	
PHASE 2 + 5 CHANGE	R	R	R		G	R	R	R	R	
PHASE 2 + 6	G	G	G	G	G	R	R	R	R	
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	
PHASE 3 + 7	R	R	R	R	R		R		R	
PHASE 3 + 7 CHANGE	R	R	R	R	R		R		R	
PHASE 3 + 8	R	R	R	R	R	R	R		G	
PHASE 3 + 8 CHANGE	R	R	R	R	R	R	R		G	
PHASE 4 + 7	R	R	R	R	R		G	R	R	
PHASE 4 + 7 CHANGE	R	R	R	R	R		G	R	R	
PHASE 7 + 8	R	R	R	R	R	G	G	G	G	
PHASE 7 + 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	

The contact persons for District #5 are as follows:

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Mr. Richard L. Daff Sr.  
Chief, Traffic Operations Division  
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The Power Company Representative is:  
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 174 AND MD 170

GENERAL INFORMATION

DRAWN BY: D.N.E.	F.A.P. NO.	TS NO.	SHEET NO.
CHECKED BY: M.T.S.	S.H.A. NO.	1464 - B	
SCALE: NONE	COUNTY: ANNE ARUNDEL	T.I.M.S. NO.	2 OF 2
DATE: MAY 25, 2001	LOG MILE: 02.0170 03.75	E-567X	



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